INDUS UNIVERSITY

INDUS INSTITUTE OF TECHNOLOGY & ENGINEERING

Constituent Institute of Indus University

B.Tech. Semester:	V	Branch:	CE
MID SEM EXAMINATION SEPTEMBER 2022			
Subject Code:	CE0517	Subject Name:	Microprocessor & Interfacing
Date:	15-Sep-2022	Time:	90 Mins
Day:	Thursday	Total Marks:	40

Instructions:

1. **Figures to the right indicate full marks.**
2. **Make Suitable assumptions wherever necessary & indicate.**

Q.1 **(a)** With a neat diagram explain the architecture of the 8086 microprocessor along with function of each block. **05**

(b) Define addressing modes. List the addressing modes supported by 8086 microprocessor and explain any three addressing modes with an example. **05**

(c) Segment register contents are given below. Calculate the starting and ending address of the segment registers. **05**

CS : 2500H

DS: 5500H

Q-2 **(a)** Explain the concept of pipelining and its advantages. **05**

OR

(a) Explain the flag register of the 8086 microprocessor in detail. **05**

(b) Explain the below instruction with an example. **05**

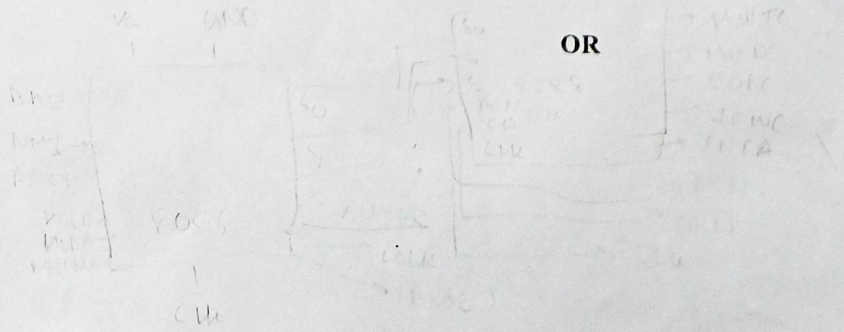
1) XLATB
2) TEST

OR

(b) Draw and explain the maximum mode diagram of 8086. **05**

Q-3 **(a)** Draw the timing diagram of I/O Write minimum mode. **05**

OR



Q-3	**(a)**	Explain the function of 8284A clock generator IC and 8288 bus controller.	**05**
Q-3	**(b)**	Describe the function of the following pins of the 8086 microprocessor. 1. NMI 2. LOCK	**05**
Q-3	**(c)**	Discuss 8086 Memory Organization/Memory Bank of 8086 microprocessor with necessary diagram	**05**